

MINUTES OF THE
131ST MEETING OF THE
WATER MANAGEMENT BOARD
FLOYD MATTHEW TRAINING CENTER
523 EAST CAPITOL AVENUE
PIERRE, SOUTH DAKOTA

DECEMBER 3, 2003

CALL TO ORDER: Vice Chairman Rodney Freeman called the meeting to order at 8:30 a.m. CST. He appointed Marian Gunderson as temporary secretary. A quorum was present.

The following were present at the meeting.

Board Members: Rodney Freeman, Marian Gunderson, Francis Brink, and Dwayne Rollag. Bernita Loucks and Leo Holzbauer were absent.

Department of Environment and Natural Resources (DENR): Garland Erbele, Eric Gronlund, Tim Schaal, Jim Goodman, Karen Schlaak, Genny McMath, Don Stroup, Mark Rath, Gale Selken, Stacy Johnson, Ken Buhler, and Ron Duvall, Water Rights Program; Jeanne Goodman, Kelli Buscher, and Kent Woodmansey, Surface Water Quality Program.

Attorney General's Office: Diane Best, Charlie McGuigan, and John Guhin.

Legislative Oversight Committee: Representative Dale Hargens, Miller, Representative Lou Sebert, Mitchell, and Senator Frank Kloucek, Scotland.

Water Permit Nos. 2512-2 and 2513-2: John Wagner and Dan Bjerke, Rapid City.

Water Right Nos. 325-3 and 1253-3: Roger Chaplin, Sturgis.

Future Use Reviews: Jay Gilbertson, Brookings.

Water Permit No. 6435-3: Roger Ihnen, Lennox, and John Sievers, Canton.

Water Permit No. 6414-3: Roxanne Weber and Andy Weber, Elkton, Pat Carlson, Pierre.

Water Permit No. 6403-3: Rick Even, David Gullickson, Brookings, and Pat Carlson, Pierre.

Findings of Fact, Conclusions of Law and Final Decision for Water Permit No. 6382-3: William St. Clair, Tulare, and Kevin Dettler, Doland.

Findings of Fact, Conclusions of Law and Final Decision for Water Right No. 3466-3: Phillip Hines, Prior Lake, MN, and Ray Rylance, Watertown.

Water Permit No. 6431-3: Phillip Hines, Prior Lake, MN, and Ray Rylance, Watertown.

Other: Pat Cerney, Burke.

APPROVE MINUTES FROM OCTOBER 1, 2003, MEETING: Motion by Gunderson, seconded by Rollag, to approve the minutes from the October 1, 2003, Water Management Board meeting. Motion carried.

MARCH MEETING LOCATION: The March 3-4, 2004, Water Management Board meeting will be held in Pierre at the Matthew Training Center.

STATUS AND REVIEW OF WATER RIGHTS LITIGATION: Charlie McGuigan reported on the Missouri River litigation. The first briefing deadline, which is December 15, 2003, is on any current outstanding issues. Any new issues that would arise from the annual operating plan or the new Master Manual issued by the Corps of Engineers will be litigated this spring. The judge in Minnesota wants the whole matter wrapped up, if possible, sometime in May 2004.

ADMINISTER OATH TO DENR STAFF: Vice Chairman Freeman administered the oath to DENR staff who intended to testify during the board meeting.

AMEND QUALIFICATIONS TO WATER PERMIT NO. 1673-1, GEORGE LEVIN: Eric Gronlund presented a handout on Water Permit No. 1673-1.

In October 1998, the Water Management Board considered Water Permit Application No. 1673-1 filed by George and Laura Levin. The application proposed to appropriate 0.86 cfs of water from runoff to irrigate 60 acres in portions of the E ½ Section 18, T6N, R10E. Water was to be diverted from two livestock dams to a water spreading system. The application was contested by Ross Reichert, Hereford, SD, who expressed concern that irrigation from the southerly dam may impair his receiving a fill in his downstream dam and dugout.

The Water Management Board approved the permit with a condition that an appropriate bypass system be constructed for the south dam before the permit was issued.

On a yearly basis, the Water Rights Program sent reminder notices to Mr. Levin regarding his need to contact the Water Rights Program with a plan for approval prior to actually irrigating and stating that Mr. Levin could not irrigate until his permit was issued. As the period to complete construction was nearing, Mr. Levin submitted a letter requesting that the south dam component of the water permit be withdrawn and the permit be issued solely for the northern dam and the accompanying 36 irrigated acres.

The chief engineer recommended Water Permit No. 1673-1 be issued to appropriate 0.51 cfs from a dam located in the NW ¼ NE ¼ Section 18 to irrigate 36 acres via a water spreading system located in portions of the NE ¼ Section 18, T6N, R 1 OE. The qualification on the permit is proposed to be amended to read as follows:

Low flows as needed for downstream domestic use including livestock water and prior water rights must be by-passed.

Mr. Gronlund stated that notice regarding this hearing and recommendation was sent to both Mr. Levin and Mr. Reichert.

Motion by Brink, seconded by Rollag, to issue Water Permit No. 1673-1, George and Laura Levin, to appropriate 0.51 cfs from a dam located in the NW ¼ NE ¼ section 18 to irrigate 36 acres via a water spreading system located in portions of the NE ¼ Section 18, T6N, R10E, subject to the qualification set forth by the chief engineer. Motion carried.

AMEND QUALIFICATIONS TO WATER PERMIT NO. 2474-2, BOB PACE: Mr. Gronlund presented a handout on Water Permit No. 2474-2.

Water Permit Application No. 2474-2 was approved in 2001 for 38.6 acre-feet of water from runoff by constructing a dam. On September 16, 2003, Tim Schaal, Water Rights Program, conducted a licensing investigation of Water Permit No. 2474-2. The permit is for a dam constructed in Section 24, T2N, R10E in Pennington County. The following is one of three qualification placed on the permit:

3. The existing well, located upstream of the dam which is at the approximate same elevation as the secondary spillway, shall be plugged in accordance with South Dakota Well Construction Standards.

Mr. Gronlund stated that the Water Rights Program assumed that the basis for this condition was that the well was to be used for drinking water purposes and that Mr. Pace would want to drill a replacement well. The well is at the approximate same elevation as the secondary spillway and is subject to inundation during high water levels.

In September 2003, Mr. Pace expressed a desire to continue using the well for household purposes, but not for drinking water.

The chief engineer recommended deleting Qualification No. 3 from the permit.

Motion by Rollag, seconded by Brink, to delete Qualification No. 3 from Water Permit No. 2474-2, Bob Pace.

Ms. Gunderson stated that Mr. Pace needs to label the well as not to be used for drinking water.

The motion carried. Gunderson cast the only dissenting vote.

WELL DRILLERS LICENSE FOR DAVID S. MANDEL: Ken Buhler reported that David Mandel was not present at the meeting.

The board was presented with an application from Mr. Mandel for a well driller's license at the October 2003 meeting. Mr. Mandel had purchased the well drilling company and rig from Joe Hartman in 2002, with the understanding that Mr. Mandel would secure his own driller's license by the end of 2003. According to the application Mr. Mandel drilled 34 wells and has about 2 ½

years of experience, under the supervision of Mr. Hartman. ARSD 74:02:01:42.03 requires five years of experience.

The department recommended denial of the application because Mr. Mandel does not have five years of experience.

After hearing the testimony at the October meeting, the board deferred action on this matter until the December meeting to allow more time for Mr. Mandel to provide additional information regarding his qualifications.

Mr. Buhler said he does not believe any additional information is available to provide to the board with regard to Mr. Mandel's experience and expertise. Mr. Buhler noted that Mr. Mandel indicated to him during a telephone conversation that he is currently studying to take the North Dakota and the Alberta, Canada, well driller's license tests.

Mr. Rollag asked whether it would be appropriate to defer this matter again.

Ms. Gunderson said she believes Mr. Mandel has the makings of a good well driller, but he does not have five years of experience, as required by law. She suggested that Mr. Mandel reapply for a well driller's license in two years when he has met the requirements.

Motion by Gunderson, seconded by Rollag, to deny David Mandel's application for a South Dakota well driller's license, due to lack of documentation showing at least five years of experience and qualifications in properly completing wells as required by ARSD 74:02:01:42.03. Motion carried. Freeman cast the only dissenting vote.

Diane Best will prepare the Findings of Fact, Conclusions of Law and Final Decision.

WATER PERMIT APPLICATION NOS. 2512-2 AND 2513-2, CITY OF RAPID CITY: Mark Rath presented his reports on the applications.

Water Permit Application No. 2512-2 proposes to transfer Rapid Valley Water Company (Murphy Ditch) stockholder/landowner's water, which has historically been used to irrigate 145 acres on the M.P. Carley (Merrilyn Schroeder) property. The transfer is for an annual volume of 195.37 acre-feet of water, if diverted at the city's water treatment plant or infiltration galleries, or 97.68 acre-feet, if stored in Pactola Reservoir. The maximum diversion rate for this transfer is 1.84 cfs from the natural flows of Rapid Creek. The transfer is from irrigation to municipal, industrial, commercial, common distribution system, rural water system, suburban housing, and domestic uses for the city of Rapid City. The priority date associated with this transfer is April 6, 1878, which will be retained.

The chief engineer recommended approval of Application No. 2512-2 with the following qualifications:

1. Permit No. 2512-2 is limited to a diversion rate of 1.84 cfs for a total annual volume of 97.68 acre feet at Pactola Reservoir or a total annual volume of 195.37 acre feet at Sioux Park

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Gallery (SW ¼ SW ¼ Section 3), Meadowbrook Gallery (SE ¼ NE ¼ Section 9), Rapid City Water Treatment Plant (SE ¼ NE ¼ Section 3), or at the Jackson Springs Gallery (NW ¼ SE ¼ Section 8, considered as replacement water only all in T1N-R7E. Maximum monthly diversion volumes at Pactola or the diversion points within Rapid City are as follows:

Monthly	Monthly acre feet at Pactola	Monthly acre feet at diversion points within Rapid City
May	13.67	27.34
June	15.90	31.80
July	21.60	43.20
August	27.71	55.43
September	18.79	37.59
October	0.00	0.00

Diversions during a month may be made at either Pactola Reservoir or at the diversion points within Rapid City, but not simultaneously at both Pactola and the Rapid City diversion points.

2. Permit No. 2512-2 authorizes diversion of only natural flow water by the city of Rapid City and does not include any rights to stored irrigation water available under contract from Pactola Reservoir.
3. That the city of Rapid City report to the chief engineer annually the amount of water withdrawn each month at Pactola Reservoir or the diversion point within Rapid City.
4. That the Water Management Board is retaining jurisdiction or Permit No. 2512-2 in the event that additional information shows that changes need to be made in the monthly or total annual volumes authorized by Permit No. 2512-2.
5. Diversions under Permit No. 2512-2 may not interfere with existing water rights in effect prior to approval of No. 2512-2 or any domestic rights.
6. The amount of Water with an April 6, 1878 priority date which maybe appropriated under Vested Water Right No. 1727-2 is reduced by 1.84 cfs.
7. Approval of Permit No. 2512-2 retires the 145 acres, known as the M.P. Carley (Merilyn Schroeder) property which has been historically irrigated from using Murphy Ditch, located in portions of the E ½ NW ¼, NE ¼ SW ¼, SW ¼ SE ¼, N ½ SE ¼, S ½ NE ¼ Section 19, T1N, R9E from future irrigation.

Mr. Rath introduced John Wagner, Rapid City Water Superintendent, and Dan Bjerke, consultant for the city.

Mr. Rath noted that no one submitted petitions in opposition to the application.

Motion by Gunderson, seconded by Rollag, to approve Water Permit Application No. 2512-2, city of Rapid City, subject to the qualifications set forth by the chief engineer. Motion carried.

WATER PERMIT APPLICATION NO. 2513-2, CITY OF RAPID CITY: Mr. Rath presented his report on the application.

The application proposes to transfer South Side Ditch Company stockholder/landowner's water which has historically been used to irrigate 74.9 acres at the Galen Steen (Gordon Howie) property. The transfer is for an annual volume of 144.84 acre feet of water, if diverted at the city's water treatment plant or infiltration galleries, or 72.23 acre feet, if stored in Pactola Reservoir. The maximum diversion rate proposed for this transfer is 0.84 cfs from the natural flows of Rapid Creek. The transfer is from irrigation to municipal, industrial, commercial, common distribution system, rural water system, suburban housing, and domestic uses for the city of Rapid City. The priority date for this transfer is May 3, 1880, which will be retained.

The chief engineer recommended approval of Application No. 2513-2 with the following qualifications:

1. Permit No. 2513-2 is limited to a diversion rate of 0.84 cfs for a total annual volume of 72.23 acre feet at Pactola Reservoir or a total annual volume of 144.84 acre feet at Sioux Park Gallery (SW ¼ SW ¼ Section 3), Meadowbrook Gallery (SE ¼ NE ¼ Section 9), Rapid City Water Treatment Plant (SE ¼ NE ¼ Section 3), or at the Jackson Springs Gallery (NW ¼ SE ¼ Section 8) considered as replacement water only all in T1N-R7E. Maximum monthly diversion volumes at Pactola or the diversion points within Rapid City are as follows:

<u>Monthly</u>	<u>Monthly acre feet at Pactola</u>	<u>Monthly acre feet at diversion points within Rapid City</u>
May	10.20	20.79
June	14.92	29.84
July	15.41	30.82
August	18.03	36.07
September	13.66	27.32
October	0.00	0.00

Diversions during a month may be made at either Pactola Reservoir or at the diversion points within Rapid City, but not simultaneously at both Pactola and the Rapid City diversion points.

2. Permit No. 2513-2 authorizes diversion of only natural flow water by the city of Rapid City and does not include any rights to stored irrigation water available under contract from Pactola Reservoir.

3. That the city of Rapid City report to the chief engineer annually the amount of water withdrawn each month at Pactola Reservoir or the diversion point within Rapid City.
4. That the Water Management Board is retaining jurisdiction of Permit No. 2513-2 in the event that additional information shows that changes need to be made in the monthly or total annual volumes authorized by Permit No. 2513-2.
5. Diversions under Permit No. 2513-2 may not interfere with existing water rights in effect prior to approval of No. 2513-2 or any domestic rights.
6. The amount of Water with a May 3, 1880 priority date which may be appropriated under Vested Water Right No. 2040-2 is reduced by .91 cfs (see staff report).
7. Approval of Permit No. 2513-2 retires the 81 acres, known as the Galen Steen (Gordon Howie) property which has been historically irrigated from South Side Ditch, located in portions of the NE ¼, N ¼ SE ½ Section 32, T1N, R9E from future irrigation.

Mr. Rath noted that No. 7 of the chief engineer's recommendation contains a typographical error. In the first line, 74.9 acres should be changed to 81 acres.

Motion by Gunderson, seconded by Brink, to approve Water Permit No. 2513-2, city of Rapid City, subject to the qualifications set forth by the chief engineer, including the change in qualification No. 7. Motion carried.

CANCELLATION CONSIDERATIONS: Eric Gronlund reported that 46 water permits/rights were scheduled for cancellation. The permit owners were notified of the hearing and the reason for cancellation. The department received a letter in support of canceling No. 1146-3, George and Marjorie Wiese. Roger Chaplin submitted a letter opposing the cancellation of Water Right Nos. 325-3 and 1253-3.

Water Right No. 325-3 appropriates .63 cfs from the James River to irrigate 44.6 acres located approximately 16 miles north of Huron. This water right has a 1954 priority date.

Water Right No. 1253-3 appropriates 0.66 cfs from the James River to irrigate 46 acres located approximately one mile upstream from No. 325-3. This water right has a 1966 priority date.

Mr. Gronlund said Mr. Chaplin also holds a ground water permit, No. 4260-3, which is scheduled for cancellation. Mr. Chaplin is not opposed to cancellation of that permit.

Mr. Gronlund distributed copies of Mr. Chaplin's opposition letter, the department's response, and an irrigation history.

Mr. Gronlund reported that in April and August 2003, Don Stroup conducted field investigations and found no irrigation or equipment on the property listed for these two water rights. At that

time, the department informed Mr. Chaplin of the water rights law regarding abandonment and forfeiture for non-use. Mr. Chaplin expressed a desire to keep these water rights. Mr. Gronlund said as part of the standard review, staff also looked at the irrigation questionnaires for these two water rights. According to the irrigation questionnaires, no irrigation took place from 1987 to 2002. Some irrigation was reported in 2003.

The chief engineer recommended cancellation of Water Right Nos. 325-3 and 1253-3 for abandonment and/or forfeiture. Mr. Gronlund noted that cancellation of these water rights does not preclude Mr. Chaplin or a future landowner from applying for a new permit from the James River.

Roger Chaplin was administered the oath by Mr. Freeman. He testified that he leases the land to his son. The land was previously leased by other individuals that were not interested in irrigation. Mr. Chaplin's son planted new alfalfa and rented a pump to irrigate the newly seeded land in the fall. His future plans included irrigation of this land. Mr. Chaplin's said he received the notice of cancellation late in the fall.

Mr. Chaplin asked the board not to cancel these two water rights.

Mr. Freeman noted that according to the irrigation questionnaires, the land was not irrigated for sixteen years. Mr. Chaplin said the land was leased during that time and the lessee had no desire to irrigate.

Mr. Brink asked if facilities were ever constructed to irrigate this land. Mr. Chaplin said the irrigation pipe is in place, but the pump no longer works. Mr. Chaplin's son rented a pump from his father-in-law so he could irrigate the new alfalfa last fall.

Ms. Gunderson commented that the land has not been irrigated for years.

Motion by Gunderson, seconded by Rollag, to cancel Water Right No. 325-3 and 1253-3, Roger Chaplin, for abandonment/forfeiture.

Discussion took place and the motion carried.

Ms. Best will prepare the Findings of Fact, Conclusions of Law and Final Decision.

The following other permits/rights were recommended for cancellation for the reasons listed:

Water Right No. 549-1 filed by Douglas and Martine Ham; abandonment/forfeiture
Water Permit No. 1714-1 filed by Larry Burditt; abandonment
Water Permit No. 914-2 filed by Duane Olson, now owned by Charles and Janet Vander May;
non-construction
Water Permit No. 1006-2 filed by Charles and Janet Vander May; abandonment/forfeiture
Water Right No. 1159-2 filed by Gary and Judy Knecht owned by Judy Knecht,
abandonment/forfeiture
Water Permit No. 1271-2 filed by Vergil E. Kjerstad; abandonment/forfeiture

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Water Right No. 386B-3 filed by Harold Booze; abandonment/forfeiture
Vested Water Right No. 429-3 filed by the city of Lennox now owned by Rowan Doom; abandonment/forfeiture
Water Right Nos. 809-3, 1141-3, 2388-3 and 4545-3 filed by Victor/Peggy Kleinsasser; abandonment/forfeiture
Water Right Nos. 1045-3 and 1962-3 filed by Alvin Gutormson now owned by Mrs. Alvin Gutormson; abandonment/forfeiture
Water Permit No. 1105-3A filed by Leon Osborn, now owned by James Osborn; abandonment/forfeiture
Water Right No. 1143-3A filed by George and Virginia Cluts; abandonment/forfeiture
Water Right No. 1146-3 filed by George/Marjorie Wiese; abandonment/forfeiture
Water Right No. 1154-3 filed by Jesse Barton; abandonment/forfeiture
Water Right Nos. 1170-3, 4146-3, 4147-3 and 4546-3 filed by George Walters now owned by Adele Walters; abandonment/forfeiture
Water Right No. 1225-3 filed by James Esser; abandonment/forfeiture
Water Right No. 1233-3 filed by Martha and Robert Keen; abandonment/forfeiture
Water Right No. 1242-3 filed by Charles Moody, now owned by Robert and Joann Nelson; abandonment/forfeiture
Water Right No. 1368-3 filed by Carl Soulek; abandonment/forfeiture
Water Right No. 1758-3 filed by Carrol Brockel; abandonment
Water Right No. 2052-3 filed by Bertie Wetzler; abandonment/forfeiture
Water Right Nos. 2382-3, 2382A-3, 4266-3, and 4266A-3 filed by Verhelst Brothers; abandonment/forfeiture
Water Right No. 2391-3 filed by Larry Deeg; abandonment/forfeiture
Water Right No. 2392-3 filed by Charles L. Boynton; abandonment/forfeiture
Water Permit No. 2432-3A filed by Mohammed and Julia Ann Hattum; abandonment/forfeiture
Water Right No. 2524-3 filed by Leslie Rau; abandonment/forfeiture
Water Right No. 2568-3 filed by Leland Kleinsasser; abandonment/forfeiture
Water Right No. 2879-3 filed by Larry Deeg; abandonment/forfeiture
Water Right No. 4260-3 filed by Roger Chaplin; abandonment/forfeiture
Water Right No. 4289-3 filed by St. Mary's Hospital; abandonment/forfeiture
Water Right No. 4494-3 filed by Roland Sieh; abandonment/forfeiture
Water Permit No. 4618-3 filed by State Line Seed; abandonment/forfeiture
Water Right No. 5335-3 filed by Charles Swenson; abandonment
Water Right No. 5364-3 filed by Van Lunen Farms; abandonment

Motion by Gunderson, seconded by Rollag, to cancel the water rights/permits for the reasons listed. Motion carried.

WATER PERMIT APPLICATION NO. 6407-3, MARSHALL BROTHERS: Jim Goodman presented his report on the application.

Water Permit Application No. 6407-3 proposed to appropriate 0.67 cfs (300 gpm) from three existing wells 100, 120, and 1036 feet deep in Beadle County. The diversion rate from the two shallow wells is 250 gpm and the diversion rate from the deep well is 50 gpm. The water is for commercial use at a cattle feedlot operation.

The two shallow wells are constructed into the Tulare Western Spink aquifer. The Tulare Western Spink aquifer is a mostly buried outwash (sand and gravel) which is under confined or artesian conditions at this site. The aquifer underlies portions of Hand, Spink, and Beadle Counties. In its entirety, it underlies 138,900 acres and contains an estimated 519,330 acre feet of recoverable water in storage. The aquifer blends into and is hydraulically connected to the Tulare Hitchcock aquifer to the east and into the Tulare Hand aquifer to the west. Ground water movement in this area is from southwest to the east northeast across southern Spink County and toward the James River.

Production well information from one of the two shallow wells indicates good sand from 95 to 120 feet in depth. The well is capable of producing 125 gpm using air to develop and had a static water level of 42 feet below land surface. This well was constructed in accordance with South Dakota Well Construction Standards. Mr. Goodman noted that he has very little information on the other shallow well.

The Dakota aquifer is a buried sand, sandstone and shale that is under confined or artesian conditions at this site. The aquifer underlies 1,250 square miles and contains an estimated 19.26 million acre feet of recoverable water in storage in Beadle County. The Dakota also extends into Hand County to the west, Spink County to the north, Sanborn and Jerauld Counties to the south, and Kingsbury County to the east. Ground water movement in the Dakota aquifer appears to be from southwest to the northeast across the area of this application.

The well completion report for the Dakota formation well indicates the "slim hole" construction technique was used. This well was drilled in 1971 when the well construction requirements were different and has been used since that time for this purpose. If this well needs to be replaced, it would have to be completed in accordance with the South Dakota Well Construction Standards. When the well was drilled, it was capable of free flowing 50 gpm.

The Water Rights Program monitors two observation wells in the Tulare Western Spink aquifer within a mile of this application. Hydrographs for these observation wells are included in Mr. Goodman's report. In general, the water level record indicates that the aquifer is capable of sustaining existing withdrawals. In general, the water level record indicates that the aquifer is capable of sustaining existing withdrawals.

The nearest existing water permit/right is Water Right No. 4260-3, which is located about two miles north of this application and obtains water from the Tulare Western Spink aquifer. This water right was canceled by the Water Management Board. The nearest Dakota aquifer water right (No. 4272-3) is held by the town of Hitchcock and is located about three miles east of this application. Interference is not a concern. The distance between wells is sufficient to minimize any potential impacts.

Mr. Goodman stated that water is available from the Dakota Formation. The Water Management Board has determined that the Tulare Hitchcock and Tulare Western Spink aquifers are fully appropriated. The board has established a deferred list of applications which would take priority over this application.

This is an existing feedlot and plans and specifications have been approved by the Department of Environment and Natural Resources. The water use is a domestic use. Stock watering is considered a domestic use. Until the definition of domestic use was changed in 1982, a water permit was not required for this facility. Mr. Goodman stated that one of the wells for this feedlot was drilled prior to 1982 and one was drilled after 1982. The Water Rights staff believes that the well drilled prior to 1982 qualifies as a vested right.

The chief engineer recommended approval of the Dakota Formation well (1036 feet deep) for 50 gpm and approval of the well constructed in 1974 into the Tulare Western Spink aquifer (100 feet deep) for 125 gpm with the Well Interference Qualification and the following qualifications:

1. The Dakota well approved under this permit shall be valved and the flow reduced to the amount needed or to a minimum when not being used. If this well is abandoned it must be plugged in accordance with Water Management Board Rules, Chapter 74:02:04.
2. The use of water from the Tulare Western Spink Aquifer authorized by Water Permit No. 6407-3 is solely for operation of the feedlot and may not be changed to include other uses.
3. Permit No. 6407-3 is subject to compliance with requirements of the Department's Water Pollution Control Permit issued pursuant to SDCL 34A-2-36 or 34A-2-112 for concentrated animal feeding operations.
4. Permit No. 6407-3 is subject to compliance with all existing and applicable Water Management Board Rules including but not limited to:
 - a) Chapter 74:54:01 Ground Water Quality Standards,
 - b) Chapter 74:54:02 Ground Water Discharge Permit,
 - c) Chapter 74:51:01 Surface Water Quality Standards,
 - d) Chapter 74:51:02 Uses Assigned to Lakes,
 - e) Chapter 74:51:03 Uses Assigned to Streams, and
 - f) Chapter 74:52:01 through 74:52:11 Surface Water Discharge Provisions.

The chief engineer recommended deferral of the well constructed in 1989 into the Tulare Western Spink Aquifer (120 feet deep) for 125 gpm. This recommendation is based on the Water Management Board's December 4, 2002, decision to defer future applications from this aquifer for a period of five years.

Mr. Goodman noted that if the board defers action on the Tulare Western Spink aquifer well constructed in 1989, it is anticipated that after the five-year period all the deferred applications from this management unit of the Tulare Aquifer will be brought back before the board for consideration.

Motion by Rollag, seconded by Brink, to accept the chief engineer's recommendation. Motion carried.

NEW WATER PERMIT APPLICATIONS: The pertinent qualifications attached to approved water permit applications throughout the hearings are listed below:

Well Interference Qualification

The well(s) approved under this permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.

Well Construction Rule Qualification No. 1

The well(s) authorized by Permit No. _____ shall be constructed by a licensed well driller and construction shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) from the producing formation to the surface pursuant to Section 74:02:04:28.

Well Construction Rule Qualification No. 2

The well(s) authorized by Permit No. _____ shall be constructed by a licensed well driller and construction shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.

Irrigation Water Use Questionnaire Qualification

This permit is approved subject to the irrigation water use questionnaire being submitted each year.

Low Flow Qualification

Low flows as needed for downstream domestic use, including livestock water and prior water rights must be by-passed.

UNOPPOSED NEW WATER PERMITS ISSUED BY THE CHIEF ENGINEER WITHOUT A HEARING BEFORE THE BOARD: See attachment.

WATER PERMIT APPLICATION NO. 1802-1, GERALD AND KAYE TUFTON: Mark Rath presented his report on the application.

The application proposes to appropriate 0.64 cfs from the Belle Fourche River to irrigate 45 acres in Butte County. This project is located approximately three miles east of Nisland.

Mr. Rath stated that the source of the water is the Belle Fourche River downstream from the Belle Fourche River Diversion Dam. The Diversion Dam diverts Belle Fourche River water into Belle Fourche Reservoir for use by the Belle Fourche Irrigation District.

This project is located just upstream from the confluence with Owl Creek, a major source of return flow water from the Belle Fourche Irrigation District.

There are 21 existing water rights/permits appropriating 42.63 cfs from the Belle Fourche River between the Diversion Dam and the confluence of Owl Creek. Of these, 15 appropriate 34.22 cfs from the river downstream of the USGS gauging station at Fruitdale to the Owl Creek confluence.

Under most conditions, Owl Creek provides sufficient flows to the Belle Fourche River below the confluence to satisfy existing water rights and domestic use during the irrigation season. In this area, water availability cannot be considered reliable.

The chief engineer recommended approval of the Application No. 1802-1 with the Irrigation Water Use Questionnaire Qualification and the following qualifications:

1. The diversion of water is authorized only when 22.0 cfs or more is flowing past the USGS gauging station on the Belle Fourche River near Fruitdale, SD to protect existing water rights/permits.
2. A minimum of 5.0 cfs shall be bypassed at the point of diversion to protect domestic use, including livestock water and fisheries in the river. Dewatering of the river is not allowed.
3. The diversion of water shall be in accordance with any written orders issued by the chief engineer.

Motion by Rollag, seconded by Brink, to approve Water Permit Application No. 1802-1, Gerald and Kaye Tufton, subject to the qualifications set forth by the chief engineer. Motion carried.

WATER PERMIT APPLICATION NO. 1808-1 TOM SEAMAN: Stacy Johnson presented her report on the application.

The application proposes to appropriate 2.0 cfs from the Belle Fourche River to irrigate 145 acres about four miles southwest of Newell in Butte County.

The source of water for this project is the Belle Fourche River downstream from the Belle Fourche Diversion Dam and below the confluence with Owl Creek, a major source of return water from the Belle Fourche Irrigation District.

Based on the USGS gauging station information, water would be available for this project most of the time. During dry years water may not be available.

There are four downstream water rights within one mile of the project. These water rights appropriate 4.65 cfs from the Belle Fourche River for irrigation. During dry years, the existing water rights may be adversely impacted by this project. If approved, this water permit would be junior to the downstream water rights/permits.

The chief engineer recommended approval of Application No. 1808-1 with the Low Flow Qualification, the Irrigation Water Use Questionnaire Qualification and the following qualification:

Diversions under this permit shall be in accordance with written orders by the chief engineer.

Motion by Gunderson, seconded by Brink, to approve Water Permit Application No. 1808-1, Tom Seaman, subject to the qualifications set forth by the chief engineer. Motion carried.

WATER PERMIT APPLICATION NO. 1803-1, ALBERT AND RYETT HARTY: Ken Buhler presented his report on the application.

The application proposes to appropriate 0.222 cfs (100 gpm) from one existing well (Minnelusa aquifer) 725 feet deep in Lawrence County. The water will be used to irrigate 22 acres, for commercial, domestic, geothermal heating and cooling, and for a hydro turbine power generator.

Mr. Buhler stated that this is a free flowing well. Some of the uses of water proposed by this application could require the continuous discharge of the well. It could be debated whether the continuous discharge of 100 gpm is a beneficial use of water or in the public interest.

The chief engineer recommended approval of the application with the Well Interference Qualification and the following qualification:

The well under this permit shall be valved and the flow reduced to the amount needed or to a minimum when not being used. If this well is abandoned or the permit cancelled, the well must be plugged in accordance with Water Management Board Rules, Chapter 74:02:04

The chief engineer's recommendation includes the following note:

Water use under this permit is limited to the amount of water needed and put to beneficial use. The approval of this permit does not authorize the use of the water for the sole purpose of augmenting flow in the downstream drainage. The free flow of water from this well without a beneficial use being made constitutes a waste of water and is prohibited.

Mr. Freeman asked what the commercial use of the water is. Mr. Gronlund said the application says it is a home based business.

Regarding the note on the chief engineer's recommendation, Mr. Freeman asked if there is an indication that the application is going to pump water out of the aquifer and let it run down the creek.

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Mr. Brink asked whether the note at the bottom of the chief engineer's recommendation should be list as a qualification. Mr. Gronlund said the note was placed in the recommendation to clarify Qualification No. 2. It was not intended to be an additional qualification to the permit.

Mr. Brink asked where the well would discharge. Mr. Buhler answered that the well would discharge into a nearby drainage. The applicant will have to comply with the Surface Water Discharge requirements.

Mr. Brink expressed concern that the discharge could be going into a fishery.

Mr. Gronlund said Mr. Harty's consultant sent an e-mail stating that he could not be present at the meeting today, but would be available on the telephone to answer questions.

Ms. Gunderson asked how this application is different from the well that fed Red Lake.

Diane Best answered that there are a number of water permits to provide supplemental water to maintain lake levels.

Mr. Buhler said the difference between this and the Red Lake issue is the applicant is putting the water to beneficial use by using it for geothermal heating and cooling and for electrical generation.

Mr. Best said this well is valved.

Representative Lou Sebert asked if, since some of the water is for commercial use, a discharge permit is required.

Kelli Buscher, Surface Water Quality Program, was administered the oath by Mr. Freeman. She testified that if nothing is being added to the water, it would not require a surface water discharge permit. The only exception to that is if there is any radiological contamination in the water.

Mr. Freeman asked if, since the water will be used for geothermal heating and cooling, the temperature of the water will be changed. He was concerned that the receiving stream could be impacted by these water temperature changes.

Ms. Buscher said heat can be a pollutant and it can cause an impact in the waterway.

Albert Harty was contacted via telephone so he could answer questions. Mr. Harty was administered the oath by Mr. Freeman.

Responding to questions from Mr. Freeman, Mr. Harty said the commercial use of the water is for a truck garden. He stated that the water will be softened in order for it to be used in the geothermal pump, but nothing will be added to the water. At the present time, about 5 gpm is discharged into two storage ponds which have a 300 foot overflow, then the water seeps into the ground. Mr. Harty would like to use the discharge to run both the hydro turbine and the geothermal pump for heating and cooling of the house.

Responding to questions from Kelli Buscher, Mr. Harty stated that regeneration of the softener water will be discharged through lines to a dam for storage. The water would be used later in the year to irrigate the tree field to the south and to irrigate the truck garden. This is in a different area than the storage ponds. The dam has not been built at this time.

Ms. Best stated that if the water permit is approved, it will be for the ability to use water for the beneficial uses listed in the application. But this permit does not mean the applicant would not have to get a discharge permit or comply with any other DENR requirements.

Motion by Gunderson, seconded by Brink, to approve Water Permit Application No. 1803-1, Albert and Ryett Harty, subject to the qualifications set forth by the chief engineer. Motion carried.

WATER PERMIT APPLICATION NO. 6437-3, CROSSWIND JERSEYS: Jim Goodman presented his report on the application.

The application proposes to appropriate 0.156 cfs (70 gpm) from one well approximately 27 feet deep in Brookings County. The water is for commercial use in a dairy.

The facility is located about four miles west of Elkton or 10 miles east and three miles south of Brookings. The actual well field is located about nine miles east of Brookings or five miles west and three miles north of Elkton.

The Big Sioux Aurora aquifer is a shallow outwash (sand and gravel) which is under water table conditions in this area. The entire Big Sioux aquifer underlies about 540 square miles in Brookings and Kingsbury Counties and contains an estimated 2 million acre feet of water in storage. The portion called the Big Sioux Aurora is conservatively estimated to underlie 39,000 acres and contains about 165,000 acre feet of recoverable water in storage in Brookings County.

Ground water moves from east to west in this area. It is strongly influenced by the area creeks, for instance, Medary Creek and the Big Sioux River, which act as discharge points. However, during certain times of the year they can act as recharge points to the aquifer. Typically, ground water levels are highest in spring to early summer, then decline throughout the rest of the year.

The test hole information indicates sand and gravel was encountered from 14 to 30 feet below land surface. There is a Water Rights observation well located in this immediate area (BG-57G). The hydrograph for this well is included in Mr. Goodman's report.

There is one existing water permit No. 6066-3 issued for 0.66 cfs (Moody County Feeders) for use in a cattle feedlot. The completion date for construction of this feedlot was October 1, 2003. That application is subject to cancellation because it has not been completed. Mr. Goodman noted that even if this application were developed, interference would not be a concern.

The next nearest permit (No. 4436-3) is for 1.67 cfs to irrigate 250 acres and is located about one mile northeast of this proposed well. Drawdown created by this pumping will not be significant nor extend very far from this proposed well at the projected pumping rate.

Mr. Goodman stated that water is available from the Big Sioux Aurora Aquifer.

The well will have to be constructed in accordance with South Dakota Well Construction Standards.

Plans and specifications for the dairy have been reviewed and approved by the department.

Mr. Goodman stated that the applicant should consider drilling two wells at this site. One of the wells would be for backup purposes.

The chief engineer recommended approval of Water Permit Application No. 6437-3 with the Well Interference Qualification, Well Construction Rural Qualification No. 1, and the following qualifications:

1. Permit No. 6437-3 is subject to compliance with requirements of the Department's Water Pollution Control Permit issued pursuant to SDCL 34A-2-36 or 34A-2-112 for concentrated animal feeding operations.
2. Permit No. 6437-3 is subject to compliance with all existing and applicable Water Management Board Rules including but not limited to:
 - a) Chapter 74:54:01 Ground Water Quality Standards,
 - b) Chapter 74:54:02 Ground Water Discharge Permit,
 - c) Chapter 74:51:01 Surface Water Quality Standards,
 - d) Chapter 74:51:02 Uses Assigned to Lakes,
 - e) Chapter 74:51:03 Uses Assigned to Streams, and
 - f) Chapter 74:52:01 through 74:52:11 Surface Water Discharge Provisions.

Motion by Brink, seconded by Gunderson, to approve Water Permit Application No. 6437-3, Crosswind Jerseys, Inc., subject to the qualifications set forth by the chief engineer. Motion carried.

WATER PERMIT APPLICATION NO. 6439-3, NORWAY DAKOTA: Mr. Goodman presented his report on the application.

The application proposes to appropriate 0.155 cfs (70 gpm) from one well approximately 752 feet deep in Lincoln County. The water is for commercial use in an existing cattle feedlot. The facility is located about seven miles east and six miles north of Beresford, or about nine miles south and one mile west of Canton.

The Dakota Formation is a buried sand, sandstone and shale which is under artesian conditions in this area. The Dakota underlies approximately 484 square miles and contains an estimated 4,297

million acre feet of water in storage in Lincoln County. The aquifer extends into Iowa to the east, Turner and Clay Counties to the west, and Union County to the south.

The well log submitted with the application indicates interbedded sandstone and shale from a depth of 463 feet below land surface to a total depth of 752 feet. The well driller's log indicates sandstone with shale from 575 feet to 752 feet. The well had a static water level of 413 feet and was capable of producing 50 gpm with 36 feet of drawdown (specific capacity of about 1.4 gpm per foot of drawdown).

The Water Rights Program monitors 35 observation wells completed into the Dakota Formation in Lincoln County. Hydrographs for two of these wells (LN-82C and LN-81P) are included in Mr. Goodman's report.

There are no other nearby water permits/rights which obtain water from the Dakota Formation. There are domestic wells in the area which use the Dakota Formation as a water source. The nearest permitted use, also a feedlot, is located about 4.5 miles southeast of this application. At this distance and with the permitted pumping rates, interference is not a concern.

Mr. Goodman stated that water is available from the Dakota Formation. The pumping rates and distances of existing wells is sufficient to minimize any potential impacts. The well has been completed in accordance with South Dakota Well Construction Standards. The plans and specifications for this facility have been reviewed and approved by the department.

The chief engineer recommended approval of Application No. 6439-3 with the Well Interference Qualification, and the following qualifications:

1. Permit No. 6439-3 is subject to compliance with requirements of the Department's Water Pollution Control Permit issued pursuant to SDCL 34A-2-36 or 34A-2-112 for concentrated animal feeding operations.
2. Permit No. 6439-3 is subject to compliance with all existing and applicable Water Management Board Rules including but not limited to:
 - a) Chapter 74:54:01 Ground Water Quality Standards,
 - b) Chapter 74:54:02 Ground Water Discharge Permit,
 - c) Chapter 74:51:01 Surface Water Quality Standards,
 - d) Chapter 74:51:02 Uses Assigned to Lakes,
 - e) Chapter 74:51:03 Uses Assigned to Streams, and
 - f) Chapter 74:52:01 through 74:52:11 Surface Water Discharge Provisions.

Motion by Brink, seconded by Rollag, to approve Water Permit Application No. 6439-3, Norway Dakota, subject to the qualifications set forth by the chief engineer. Motion carried.

SEVEN YEAR REVIEW OF FUTURE USE PERMITS: All future use permits are required to be reviewed every seven years for anticipated development and future need. Eric Gronlund presented the table listing the six future use permits scheduled for review. (See attachment).

The future use reviews were public noticed in local newspapers. The department received no petitions to intervene. All six of the permit holders submitted letters requesting retention of the permits. The chief engineer recommended allowing the future use permits to remain in effect for the amounts shown on the table.

Mr. Gronlund noted that the future use permit for the East Dakota Water Development District was initially issued to the East Dakota Conservancy Subdistrict to reserve 400,000 acre feet of water from the Missouri River with a priority date of 1977. The water was reserved for future municipal, industrial, and rural water system uses in the 11 counties that were served by the subdistrict. Because of the quantity of water involved at that time, besides coming before the Water Management Board, the subdistrict was also required to receive approval from the legislature. Since 1977, this future use permit has never come up for a seven year review. Also during that interim period of time, the subdistricts were dissolved and were replaced by water development districts. The assets of the subdistricts went to the water development districts.

During the summer of 2003, Jay Gilbertson, Manager of the East Dakota Water Development District, met with the Water Rights Program staff and it was discovered that this future use permit had never been reviewed. The East Dakota Water Development District board reviewed potential uses for the water and submitted a letter requesting to retain 145,000 acre feet of water.

The Water Rights Program recommended that all six future use permits be allowed to remain in effect for the amounts listed on the table.

Motion by Gunderson, seconded by Rollag, to allow the following future use permits to remain in effect: No. 2086-2, city of Rapid City - 6,214.8 AF; No. 3574-3, East Dakota Water Development District - 145,000 AF; No. 4798-3, city of Parker - 340 AF; No. 4817-3, South Lincoln Rural Water System - 1,448 AF; No. 4839A-3, city of Tyndall - 410 AF; and No. 4860-3, city of Hoven - 410 AF. Motion carried.

WATER PERMIT APPLICATION NO. 6435-3, SOUTH LINCOLN RURAL WATER SYSTEM: Jim Goodman presented his report on the application.

Mr. Freeman advised the board that one of his clients is in litigation with South Lincoln Rural Water System (RWS). Mr. Freeman said he does not perceive it as a conflict, but he would be willing to excuse himself if South Lincoln RWS so requested. South Lincoln did not request Mr. Freeman to excuse himself.

The application proposes to increase the acre feet limitation authorized by Water Permit No. 6311-3. Permit No. 6311-3 authorizes 4.0 cfs (650 acre feet annually) from three wells completed into the Upper Vermillion Missouri aquifer. These wells are approximately 90 feet deep in Turner County. Application No. 6435-3 proposes to increase the acre feet limitation from the three wells from 650 acre feet to 900 acre feet annually. The water is for rural water system use, including serving the ethanol plant near Chancellor.

The well field is located approximately four miles south and two miles west of Chancellor or two miles north and three miles east of Hurley.

The Upper Vermillion Missouri is a buried outwash (sand and gravel) that underlies 207 square miles and contains an estimated 1.8 million acre feet of water in storage in Turner and Hutchinson Counties with the majority of the water in Turner County. The aquifer is hydraulically connected to the overlying Parker Centerville aquifer and to the south near the Clay-Turner County border the aquifers blend together into one huge system.

Production well testing by the rural water system indicates well No. 1 is capable of producing 449 gpm with a specific capacity of 11.36 gpm per foot, well No. 2 is capable of producing 525 gpm with a specific capacity of 21.86 gpm per foot, and well No. 3 is capable of producing 580 gpm with a specific capacity of 33.66 gpm per foot. All three of the production wells had sand and gravel beginning between 56 and 59 feet below land surface and extended to a depth between 83 and 92 feet below land surface. Mr. Goodman stated if a well were drilled from surface to the bedrock, you would see a shallow sand and gravel layer that extends to about 40 feet (Parker Centerville aquifer), a clay layer, then in the 50 to 90 foot zone another sand and gravel layer (Upper Vermillion Missouri aquifer). Another layer below that is sand and gravel from 120 to almost 250 feet below land surface. That is also called the Upper Vermillion Missouri aquifer. The significance of that is in this particular area, the intermediate layer had advantages to the rural water system in terms of water quality. It has advantages to local irrigators because the well doesn't have to be so deep. It also is more isolated. To the northwest and south of this area, this layer disappears. Mr. Goodman said this is his justification for calling this intermediate layer the same aquifer as the deep one.

The Water Rights Program monitors 16 observation wells within a three-mile radius of this application. Those wells are completed into all three layers. Hydrographs for four of the observation wells are included in Mr. Goodman's report. In general, the water level records indicates that the aquifer is capable of sustaining additional withdrawals.

Mr. Goodman stated that there are many existing water permits/rights in this area from both the Parker Centerville and Upper Vermillion Missouri aquifers. There are three existing water rights with irrigation wells within 1,500 feet of one of the three wells authorized under Water Permit No. 6311-3. Mr. Goodman said interference will occur. This is shown by the fluctuation of the observation well hydrographs. However, this is not expected to be adverse nor affect the availability of water from individual production wells.

Mr. Goodman said these are existing wells and have been constructed in accordance with South Dakota Well Construction Standards.

Mr. Roger Ihnen submitted a letter opposing the application.

The chief engineer recommended approval of Application No. 6435-3 with the Well Interference Qualification and the following qualifications:

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1. Water Permit No. 6311-3 and 6435-3, combined, authorize a total annual diversion of 900 acre feet of water.
2. South Lincoln Rural Water System shall report to the chief engineer annually the amount of water withdrawn from the Upper Vermillion Missouri Aquifer.

Mr. Freeman administered the oath to John Sievers, Manager of the South Lincoln RWS. He testified that Mr. Ihnen's son, who is chairman of the board for Great Plains Ethanol, contacted South Lincoln RWS and asked if the RWS would be interested in supplying quality water for use at the ethanol plant. South Lincoln RWS agreed to supply water to the ethanol plant.

Mr. Sievers said good quality water is very important to the ethanol plant's distilling process. The rural water system obtained a \$20,000 grant from the Vermillion Basin Water Development District to look to water with a specific Total Dissolved Solids (TDS). Mr. Ihnen gave the rural water system permission to drill a test well on his land, and as expected, the TDS turned out to be suitable. At that time, the rural water system negotiated the land purchase from Mr. Ihnen, and drilled the three production wells. In March 2003, the rural water system started pumping.

Mr. Sievers stated that when the irrigation systems are not running, the rural water system wells do not have an effect on the aquifer. At the present time, the rural water system is delivering 500,000 gallons of water per day to the ethanol plant. The aquifer static level is 50.1 feet above the pump. Mr. Sievers said that during the irrigation season he has seen the static level drop to seven feet. He stated that when he saw the level falling, he choked the pumps back from 500 gpm to about 300 gpm so there would not be interference with any other wells.

Mr. Sievers stated that in June 2003 he visited with representatives from the ethanol plant who informed him that they could not operate at the acre feet level that the wells were developed for.

Ms. Best stated that the irrigation system is only about 60 days long. She asked if that is also the peak period for the ethanol plant. Mr. Sievers answered that he does not know.

Mr. Freeman administered the oath to Roger Ihnen. He testified that he is not against the ethanol plant as long as it's water use does not affect his irrigation well. This year it did affect the irrigation well. Mr. Ihnen said he has always had problems in late August, but this year the irrigation system produced air through the nozzles on the first circle around the field in July. It got worse as the summer progressed. Mr. Ihnen said he put up with it because he is not against the ethanol plant. This application asks for more water than what they originally applied for, but Mr. Ihnen said as he understood it, the rural water was going down to the 150 to 200 foot level. He has no objection to going down to that level, but he does not want them to take more water out at the level they are now.

Mr. Ihnen stated that he has a domestic well about 300 feet from one of the rural water system's wells that has not been affected at all.

Mr. Rollag asked how deep into the well the intake is. Mr. Ihnen said the pump sits about two feet from the bottom, so he cannot lower the pump.

Responding to a question from Mr. Brink, Mr. Goodman said Mr. Ihnen could do some work on his wells to increase the capacity. South Lincoln could stop using the well that is closest to Mr. Ihnen and use a different well. He noted that there are several other landowners with irrigation wells in the same area.

Mr. Goodman said if the department receives a complaint, an investigation will be done to try to determine who is at fault.

Responding to a question from Mr. Brink, Mr. Sievers stated that Great Plains Ethanol informed him that the Topeka shiner was found in the creek where the plant was discharging, so they had to discharge more water than what they anticipated.

Responding to a question from Ms. Best, Mr. Sievers said the rural water system is considering different alternatives in order to accommodate the TDS levels needed by the ethanol plant.

Mr. Freeman requested board action.

Motion by Rollag, seconded by Gunderson, to approve Water Permit Application No. 6435-3, South Lincoln Rural Water System, subject to the qualifications set forth by the chief engineer. Motion carried.

Ms. Best will prepare the Findings of Fact, Conclusions of Law and Final Decision.

WATER PERMIT APPLICATION NOS. 6414-3, ANDY WEBER AND 6403-3, RICK EVEN:

Diane Best offered the following exhibits:

DENR 2 - Jim Goodman's vita

DENR 3 - Department file on Permit Application No. 6403-3, Rick Even

DENR 4 - Department file on Permit Application No. 6414-3, Andy Weber

DENR 5 - Water permit application map

Mr. Freeman said the exhibits would be accepted into the record.

Jim Goodman presented his reports on the applications.

Application No. 6403-3 proposes to appropriate 1.78 cfs (800 gpm) from one well approximately 190 feet deep to irrigate 100 acres in Brookings County. The application requests a diversion rate greater than the statutory limit of one cfs per 70 acres. Mr. Goodman noted that because of the design of this system, it may be necessary to pump at the greater diversion rate.

Mr. Goodman pointed on Exhibit 5 the location of the application, which is three miles north of Elkton.

The Rutland aquifer is a buried outwash (sand and gravel) which is under confined or artesian conditions at this site. The aquifer underlies 240 square miles and contains an estimated 400,000 acre feet of water in storage in Brookings County. Ground water movement appears to be from

east to west and the aquifer extends into Minnesota to the east, Deuel County to the north, and Hamlin County to the south. The aquifer averages about 15 feet in thickness and this could be a limiting factor to the development of the aquifer.

A test well log for this application indicates clay from the surface to a depth of 158 feet where sand and gravel was encountered to a depth of 187 feet. The well had a static water level of about 50 feet below land surface and was capable of producing about 60 gpm using air to develop.

The Water Rights Program monitors observation well BG-78E completed into the Rutland aquifer and located about two miles northwest of this site. A hydrograph for this well is included in Mr. Goodman's report. The observation is located within about 1,300 feet of an irrigation well. The hydrograph shows fluctuation due to irrigation pumping in the area. In general, the water level record indicates that the aquifer is capable of sustaining additional withdrawals.

The nearest existing water right (No. 3047-3) is about $\frac{3}{4}$ mile south of this application.

Mr. Goodman concluded that water is available from the Rutland aquifer. This additional diversion is not expected to change the overall pattern of fluctuation in the aquifer. The well authorized by this application must be constructed in accordance with South Dakota Well Construction Standards. Because of the design of this system it is necessary to pump at the greater diversion rate. Mr. Goodman said this is a reasonable request.

The chief engineer recommended approval of Water Permit Application No. 6403-3, Rick Even, with the Well Interference Qualification, Well Construction Rule Qualification No. 1, the Irrigation Water Use Questionnaire Qualification, and the following qualification.

Pursuant to SDCL 46-5-6, which allows a greater diversion rate in the method of irrigation, time constraints, or type of soils so requires, Permit No. 6403-3 authorizes a maximum diversion rate of 1.78 cfs for the irrigation 100 acres with an annual volume not to exceed 2 acre feet of water per acre per year.

Water Permit Application No. 6414-3 proposes to appropriate 2.0 cfs (898 gpm) from one well approximately 160 feet deep to irrigate 200 acres in Brookings County.

Mr. Goodman pointed on Exhibit 5 the location of the application, which is two miles north and one mile east of Elkton.

'The Rutland aquifer is a buried outwash (sand and gravel) which is under confined or artesian conditions at this site. The aquifer underlies 240 square miles and contains an estimated 400,000 acre feet of water in storage in Brookings County. Ground movement appears to be from east to west and the aquifer extends into Minnesota to the east, Deuel County to the north, and Hamlin County to the south. The aquifer averages about 15 feet in thickness and this could be a limiting factor to the development of the aquifer.

A test well information submitted with the application indicates gravel from 145 feet to 160 feet below land surface. This test well had a static water level of 40 feet below land surface and was capable of producing 45 gpm using air to develop. This information conforms with other data from irrigation wells, other test wells, domestic wells and observation wells in the general area. The test well indicates that it is likely a high capacity well can be drilled at this site, however, the aquifer is relatively thin and testing will be needed to determine if a single well will be capable of producing the amount of water requested.

The Water Rights Program monitors observation wells BG-78E and BG-78 completed into the Rutland aquifer and located about three miles north and four and one half miles west of this site. Hydrographs for these wells are included in Mr. Goodman's report. These wells show good response to irrigation pumping in the area.

There are two existing water rights in the immediate vicinity of this application. Water Right No. 3047-3 (1.88 cfs to irrigate 132 acres) is located about $\frac{1}{2}$ mile north of this site and Water Right No. 4213-3 (2.00 cfs for irrigation of 200 acres) is located about $\frac{1}{2}$ mile south of this application. Drawdown created by pumping will overlap and interference will occur. Mr. Goodman said he does not expect it to be adverse.

Mr. Goodman concluded that water is available from the Rutland aquifer. The aquifer is under artesian conditions and water levels can be expected to fluctuate significantly due to pumping. The magnitude of the fluctuation is shown by the observation well hydrographs. This may require the lowering of pumps in some wells in order to maintain the amount of water needed, especially during drought years when more water is used. The well authorized by this application must be constructed in accordance with South Dakota Well Construction Standards.

The chief engineer recommended approval of Water Permit Application No. 6414-3 with the Well Interference Qualification, Well Construction Rule Qualification No. 2, and the Irrigation Water Use Questionnaire Qualification.

Pat Carlson, attorney from Pierre, appeared on behalf of petitioners by Mary Ellen McGill and Mary Ellen McGill Trust, who opposed both applications.

Responding to questions from Ms. Carlson, Mr. Goodman stated that test well information provided in his report are on the South Dakota side of this aquifer. The Water Rights Program does not have any information regarding the Minnesota side of this aquifer. Staff has not spoken to the geologist who does the testing in Minnesota.

Ms. Carlson stated that she has filed a limited power of attorney in order to speak on behalf of Mary Ellen McGill and the McGill family trust.

Mr. Freeman administered the oath to Ms. Carlson. She testified that the McGill family trust holds the land situated over the Rutland aquifer. Ms. Carlson stated that in preparing for today's hearing, she attempted to subpoena Jay Frishmon, the ground water specialist and a licensed professional geologist from the state of Minnesota. Ms. Carlson was informed that the state of Minnesota does not have to honor South Dakota's subpoenas and that the state of Minnesota did

not appreciate having one of its employees subpoenaed in a civil matter in the state of South Dakota. Ms. Carlson stated that since Mr. Frishmon does not have to honor the subpoena, she does not have an expert witness today. She requested that the state of Minnesota information Mr. Frishmon would have provided be obtained through the South Dakota chief engineer.

Ms. Carlson said the McGill's hold 742 acres of tillable farm land, which is all irrigated. She said the McGill's are not contesting the findings of the chief engineer regarding the South Dakota side of the aquifer.

Ms. Carlson offered Exhibit 1, several land plats of the Elkton area. The exhibit was accepted into the record.

Ms. Carlson noted that Mrs. McGill's land (Section 22 and Section 24) is on the South Dakota/Minnesota border - Brookings County, SD and Lincoln County MN. There are two wells just over the border into Minnesota that provide water for irrigation on Mrs. McGill's farm property. Mrs. McGill is not have any trouble with the South Dakota side, but she is having trouble with the two wells in Minnesota that are experiencing a water shortage. All of these wells are fed by the Rutland aquifer. The water runs east to west. Mrs. McGill's property is at the high end, so the flow is away from her property. Both of the proposed wells are deeper than Mrs. McGill's wells. Mrs. McGill's wells and pumps are as deep as they can be, as they are at the bottom of the aquifer.

Ms. Carlson read the following statement on Mrs. McGill's behalf: "Our well is on the high side of the aquifer. We cannot lower our well as we are at the bottom of the aquifer. The proposed wells are deeper than ours, therefore, it will deplete our water. The water is in very coarse sand and moves extremely fast. Our nearest farm is located 1 ½ mile south of the proposed Andy Weber well and a little over four miles southeast of the proposed Rick Even well. We already have been experiencing water shortages in these wells."

Ms. Carlson stated that even though the South Dakota engineer's report is, no doubt, accurate and it appears that there is sufficient water to provide for the permits as requested, the problem is Mrs. McGill is a South Dakota/Minnesota landowner whose wells are on the Minnesota side of the aquifer and who is already having water shortage problems for the irrigation on her land.

Ms. Carlson asked that DENR contact the ground water specialist in the state of Minnesota to obtain test well results from that area before the board makes a decision as to whether or not to approve these applications. She said there is a test well on the border between South Dakota and Minnesota that is being used by the town of Elkton. Ms. Carlson said she realizes it is not the responsibility of the state of South Dakota to go to Minnesota to get these test well results, but we are looking at a negative impact on an existing irrigation system affecting a South Dakota landowner.

Ms. Best stated that the McGill's petition contains a legal description of the McGill property that states part of the land is in Section 30, T109N, R47.

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Ms. Carlson said the copy of the farm lease shows the property is in Section 24, Section 22, Section 27, and Section 30.

Ms. Best asked whether Section 30 is on the South Dakota side.

Ms. Carlson said Sections 22 and 27 are on the South Dakota side and Sections 24 and 30 are on the Minnesota side.

Ms. Best asked if the description contains a typographical error regarding the range. She offered Exhibit 6, the copy of the farm lease. The exhibit was accepted into the record.

Ms. Best said the farm lease refers to Section 30, Township 109 North, Range 47 West.

Ms. Carlson stated that Mrs. McGill has not identified Section 30 to be the problem area. The problem area is in Section 22 in Brookings County and Section 24 in Lincoln County, MN.

Ms. Best stated the legal description places Section 30 outside of the map and several miles west of the property at issue.

Ms. Carlson said everything that was provided to her by the landowner points to Section 22 and Section 24 as the two areas that are the most affected.

Mr. Rollag asked if the McGill's shallower wells are in the same aquifer as the deeper wells of the applicants. Ms. Carlson answered that they are all in the Rutland aquifer.

Dave Gullikson asked Mr. Goodman if he thinks all of these wells are in the same aquifer. Ms. Best said she intends to recall Mr. Goodman after the other parties have testified.

Ms. Best asked Mr. Goodman if he is aware of a South Dakota water permit for Section 22, Township 109 North, Range 47 West in Brookings County, SD.

Mr. Goodman stated that there is no permit for irrigation development in Section 22. There is a permit for irrigation in Section 27. Technically, if you drilled a well in Minnesota and planned to irrigate in South Dakota, you would have to obtain a permit.

Regarding Mr. Gullikson's question on whether these wells are all in the Rutland aquifer, Mr. Goodman said he would like to look at more data on the wells before he answered that question.

Ms. Best said a DENR staff person was presently checking to see whether a permit was ever issued for irrigation in Section 22. Ms. Carlson said she would call the McGill's and find out specifically where the wells are located. The board took a short break.

Ms. Best said staff found there is a permit for irrigation in Section 27. There is no South Dakota permit for Section 22.

Ms. Carlson stated that her client does not have a problem with the South Dakota wells, but they do have a problem with the Minnesota wells in the Rutland aquifer.

Mr. Freeman said the Water Management Board doesn't have any control over the Minnesota well.

Ms. Best stated that if the Minnesota wells are being used to irrigate land in South Dakota (Section 22), a South Dakota water permit may need to be in place.

Dave Gullickson, Brookings, was administered the oath by Mr. Freeman. Mr. Gullickson said he sells farm and irrigation equipment in the Elkton area.

Mr. Gullickson testified that the McGill well in Section 27 is about 80 feet deep. He does not believe the McGill well in Section 24 is in the Rutland aquifer.

The parties provided closing statements.

Board discussion took place and Mr. Freeman requested a motion.

Motion by Rollag, seconded by Gunderson, to approve Water Permit Application No. 6403-3, Rick Even and Water Permit Application No. 6414-3, Andy Weber, subject to the qualifications set forth by the chief engineer. Motion carried.

John Guhin will prepare the Findings of Fact, Conclusions of Law and Final Decision.

FINDING OF FACT, CONCLUSIONS OF LAW AND FINAL DECISION FOR WATER PERMIT NO. 6399-3, KEITH AND KIP KRULL: Mr. Guhin stated that the only response was from the Water Rights Program suggesting changes in two paragraphs. Mr. Guhin had no objection to the changes.

Motion by Rollag, seconded by Gunderson, to approve the Findings of Fact, Conclusions of Law and Final Decision for Water Permit No. 6399-3, Keith and Kip Krull, including the changes made by the Water Rights Program. Motion carried.

FINDINGS OF FACT, CONCLUSIONS OF LAW AND FINAL DECISION FOR WATER PERMIT NO. 6382-3, WILLIAM ST. CLAIR: Mr. Guhin said the only response was from the Water Rights Program suggesting several technical corrections. Mr. Guhin had no objection to the changes.

Motion by Rollag, seconded by Brink, to approve the Findings of Fact, Conclusions of Law and Final Decision for Water Permit No. 6382-3, William St. Clair, including the changes made by the Water Rights Program. Motion carried.

FINDINGS OF FACT, CONCLUSIONS OF LAW AND FINAL DECISION IN THE MATTER OF CANCELLATION OF WATER RIGHT NO. 3466-3, PHILLIP HINES: Mr. Guhin noted that no changes were suggested by any of the parties.

Motion by Rollag, seconded by Gunderson, to approve the Findings of Fact, Conclusions of Law and Final Decision in the matter of cancellation of Water Right No. 3466-3, Phillip Hines.
Motion carried.

WATER PERMIT APPLICATION NO. 6431-3, PHILLIP HINES: Ms. Best offered Exhibit 1, the agency file on Water Permit Application No. 6431-3. The exhibit was accepted into the record.

Jim Goodman presented his report on the application.

The application proposes to appropriate 1.0 cfs (450 gpm) from one well approximately 54 feet deep to irrigate 91 acres 14 miles north and one mile west of Huron in Beadle County.

The Tulare East James aquifer is predominantly buried outwash (sand and gravel) in Spink and Beadle Counties, but can be under water table or artesian conditions in this area. The aquifer underlies 23,200 acres and contains an estimated 132,000 acre feet of recoverable water in storage in Beadle County. The aquifer extends into Spink County where it underlies 100,700 acres and contains an estimated 476,000 acre feet of recoverable water in storage. These estimates were taken from a report that was completed in 1982. In 1984 Mr. Goodman did an assessment of the aquifer and quantified another estimate of the Tulare East James underlying 102,400 acres and containing 630,000 acre feet of recoverable water in Spink County. The recharge rate is estimated to be 6,800 acre feet per year. This equates to an average recharge rate of 0.76 inches per year for the Tulare East James aquifer. This would equate to an average volume of recharge of 7,950 acre feet per year for the entire aquifer in Spink and Beadle Counties. Comparing this result with the pumping records for the Tulare East James aquifer since 1979 indicates that in six of those years pumping exceeded the average annual recharge to the aquifer. Mr. Goodman stated that the average pumping from the aquifer has been 6,604 acre feet for the last 24 years and the average pumping for the last three years has been 10,548.

The Water Rights Program monitors observation well BD-771 located within two miles of this application. A hydrograph for this well is included in Mr. Goodman's report. The water levels for this observation well show good response to climatic conditions - rising water levels during wet years and gradually declining water levels during dry years. The water level record indicates that the aquifer is capable of sustaining existing withdrawals.

There is one existing water right (No. 3268-3) located within one mile of this application. Interference is not a concern. Drawdown created by pumping is not expected to be significant at this distance between wells.

Mr. Goodman reported that the lands requested by this application were covered by Water Right No. 3466-3, which was cancelled by the Water Management Board at a July 10, 2003, hearing. This application requests the very same irrigated area and diversion point as the cancelled water right. The water right was cancelled for abandonment/forfeiture.

Mr. Goodman concluded that water is not available from the Tulare East James aquifer. The Water Management Board has declared this aquifer fully appropriated based upon the water use.

The chief engineer recommended denial of Water Permit Application No. 6431-3 for the following reasons: 1) SDCL 46-6-3.1 states that the annual withdrawal of ground water shall not exceed the average estimated annual recharge to the aquifer; 2) all water available for appropriation within the Tulare East James aquifer in Spink and Beadle Counties is presently appropriated; and 3) it is not in the public interest because the unavailability of proven recharge capacity within the Tulare East James aquifer.

Ms. Best offered Exhibit 2, Jim Goodman's vita. The exhibit was accepted into the record.

Ray Rylance, attorney from Watertown, represented Phillip Hines.

Responding to a question from Mr. Rylance, Mr. Goodman answered that the volume of water in the aquifer has increased from 1977 to 2003.

Mr. Rylance asked when the department adopted the policy that this aquifer was fully appropriated. Mr. Goodman said he believes that was in 1984.

Mr. Rylance asked Mr. Goodman if he agreed that no permits were issued from 1982 to 1991. Mr. Goodman agreed.

Mr. Rylance offered Exhibit 3, a list of permits in the Tulare East James aquifer. The exhibit was accepted into the record. Mr. Rylance said this document indicates that 11 permits were issued in 1981 for 2,071 acres and totaling 28 cfs. He asked Mr. Goodman if this was when the aquifer was at its lowest. Mr. Goodman said the time period of 1981 and 1982 is the lowest period record the department has.

Mr. Rylance asked whether Mr. Goodman is familiar with the Daryle Starr permit that was issued for 2.2 cfs from the Tulare East James aquifer to irrigate 160 acres. Mr. Goodman answered that after he spoke with Mr. Rylance on the phone he looked up information on this permit. He said that application was a "clean up" after an inspection that determined that there were more acres under irrigation.

Mr. Rylance asked how many permits are issued in the Tulare East James aquifer and what is the total acre feet of water for these permits. Mr. Goodman answered that it is about 42,000 acre feet. Mr. Rylance said Mr. Goodman's report says during the last 24 years the average pumping from the aquifer has been 6,604 acre feet, which is far less than the 42,000 acre feet that is permitted.

Mr. Rylance said Mr. Goodman's report states that for the same period of time the average volume of recharge is 7,950 acre feet per year and the average discharge was 6,604 acre feet. Mr. Goodman said that is the irrigation discharge. Mr. Rylance said the observation well for the same period of time indicates that the aquifer is gaining in total volume. Mr. Goodman said that is correct.

Mr. Rylance said if in 1981 Mr. Goodman advised the Water Management Board that water was available for 28.94 cfs of water to irrigate 2,071 acres when the observation well was five feet lower than it is today, he should be able to recommend approval of 450 gpm (1 cfs) to irrigate 91 acres in 2003.

Ms. Best asked Mr. Goodman to explain why permits were being recommended for approval in 1981 when there was less water in the aquifer than there is today, and today the department is recommending denial of permits from this aquifer.

Mr. Goodman said the computer model study was not completed until 1984, so the recharge rate was not available until 1984. Mr. Goodman explained how the average annual recharge was calculated.

The attorneys provided closing statements.

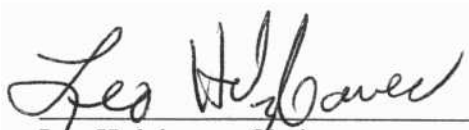
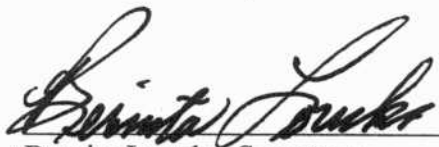
Discussion took place among the board members. Mr. Freeman requested board action.

Motion by Gunderson, seconded by Rollag, to deny Water Permit Application No. 6431-3, Phillip Hines. Motion carried.

Mr. Guhin will prepare Findings of Fact, Conclusions of Law and Final Decision.

ADJOURN: Mr. Freeman declared the meeting adjourned at 3:45 p.m.

Approved this 3rd day of March, 2004.


Leo Holzbauer, Chairman
Bernita Loucks, Secretary

WATER MANAGEMENT BOARD MEETING - December 3, 2003

Qualifications:
 wi - well interference
 wcr - well construction rules
 iq - irrigation questionnaire
 lf- low flow

Unopposed New Water Permit Applications Issued Based on the Chief Engineer Recommendations

No.	Name	Address	County	Amount	Use	Source	Qualifications
1799-1	Kaski Homes, Inc.	Rapid City	MD	0.16 cfs	shd	1 well-Inyan Kara Formation	wi
1804-1	Ross Lamphere	Sturgis	MD	0.10 cfs	commercial	1 well-Inyan Kara Formation	wi, wcr
1805-1	T.C.&G Water Association	Glencross	DW	0.22 cfs	rows	1 well-Fox Hills Formation	wi, wcr, 1 special
1806-1	Luff Exploration Company	Denver CO	HR	0.194 cfs	industrial	1 well-Minnelusa Formation	none
1807-1	28 Bomb Wing	Ellsworth AFB	MD	1.11 cfs	industrial	1 well-Madison	wi, wcr, 3 special
2509-2	Brad & Marlene Pisha	Tuthill	BT	3.89 cfs	272 acres	2 wells-Ogallala Formation	wi, wcr, iq
3427A-3	City of Aberdeen	Aberdeen	BN	no add'l	municipal	increased future use area	2 special
6417-3	City of Lake Norden	Lake Norden	HM	630 AF	municipal	2 wells-Big Sioux:Brookings	wi, wcr, 1 special
6433-3	Cooperative Credit Co.	Sioux Center IA	TU	no add'l	12 acres	1 well-Parker Centerville Aqu	wi, iq
6434-3	Berens Farms	Parker	TU	1.33 cfs	90 acres	1 well-Vermillion:East Fork	wi, wcr, iq, 1 special
6438-3	Wetlands America Trust	Bismarck ND	MP	84 AF	fwp	runoff	If, 1 special
6440-3	DeVries, Inc.	Cavour	BD	1.78 cfs	134 acres	1 well-Floyd:East James	wi, wcr, iq
6441-3	Six Mile Creek Golf Course	White	BG	0.67 cfs	51 acres	dugout	iq
6442-3	Louis Fritz	Raymond	CK	2.2 cfs	no add'l	1 well-Altamont Aquifer	wi, wcr, iq
6443-3	Ronald W Marone	Cavour	BD	1.93 cfs	135 acres	2 wells-Floyd: East James	wi, wcr, iq
6444-3	Arlyn & Rose Spindler	Hoven	WL	2.0 cfs	126 acres	3 wells-Bowdle Hoven North	wi, wcr, iq, 1 special

SEVEN YEAR REVIEW OF FUTURE USE PERMITS CONSIDERED
BY THE WATER MANAGEMENT BOARD ON DECEMBER 3, 2003

FU Permit No.	Permit Holder	Year issued.	Source	Last reviewed	Submitted letter requesting retention of permit	Submitted pump records (annually)	Amount Recommended AF-acre-feet
2086-2	City of Rapid City	1989	Madison Formation	1996	yes	14,538 AF ¹	6,214.8 AF
3574-3	East Dakota Water Devel Dist.	1977	Missouri River	----	yes	72,200 AF ²	145,000 AF
4798-3	City of Parker	1981	well less than 100 feet deep	1996	yes	164 AF	340 AF
4817-3	South Lincoln Rural Water	1982	Dakota Sandstone Formation	1996	yes	1,400 AF	1,448 AF
4839A-3	City of Tyndall	1982	wells less than 160 feet deep	1996	yes	---- soon to connect with B-Y Water	410 AF
4860-3	City of Hoven	1982	wells between 50 and 200 feet deep	1996	yes	107 AF	410 AF

¹ total water produced by all sources in 2002

² total of major public water supplies in 2002 (45,200 AF) and projected full capacity of Lewis & Clark RWS (27,000 AF) for a total of 72,200 AF. (2 times amount actually put to beneficial use = 144,400 AF)